

Application No.: 09/557,796

Attorney Docket No.: 252/123

Filing Date: April 25, 2000

(037002-0205)

Response to Office Action (mailed January 16, 2003, Paper No. 20) faxed April 16, 2003

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Amendments to the Claims

Please amend claims 99-109. Please add new claims 130-136. Please cancel claims 106 and 110-121 without prejudice.

Listing of claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-98. (Cancelled).

99. (Currently amended) A recombinant cell, comprising a first recombinant an isolated nucleic acid molecule encoding one or more polypeptides that convert responsible for converting a source compound to a target compound, and a second nucleic acid molecule encoding one or more polypeptides that isolated genes responsible for converting said target compound to provide a detectable signal in the presence of said target compound, wherein said second nucleic acid molecule comprises an inducible promoter to control expression of polypeptides encoded therein.

100. (Currently amended) The recombinant cell of claim 99 95, wherein said detectable signal is selected from the group consisting of growth, fluorescence, luminescence, and color.

101. (Currently amended) The recombinant cell of claim 99 95, wherein said detectable signal is growth.

102. (Currently amended) The recombinant cell of claim 99 95, wherein said cell metabolizes said target compound is-metabolized to an element selected from the group consisting of carbon, phosphorous, nitrogen, and sulfur.

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103. (Currently amended) The recombinant cell of claim 99 95, wherein said target compound is selected from the group consisting of ascorbate and 2-Keto-L-Gulonate.

104. (Currently amended) The recombinant cell of claim 99 95, wherein said cell is a bacterial cell.

105. (Currently amended) The recombinant cell of claim 104 95, wherein said bacterial cell is *Klebsiella oxytoca*.

106. (Cancelled).

107. (Currently amended) The recombinant cell of claim 99 102, wherein said inducible promoter is induced by an inducer distinct from said target compound.

108. (Currently amended) The recombinant cell of claim 99 102, wherein the detectable signal is produced in the presence of the source compound and an inducer of said promoter, but not in the presence of the source compound and absence of said inducer.

109. (Currently amended) The recombinant cell of claim 99 102, wherein said inducible promoter comprises a ~~the~~ *trp-lac* hybrid promoter.

110.-129. (Cancelled).

130. (New) The recombinant cell of claim 109, further comprising a *lacO* operator and a *lacI^r* repressor gene.

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131. (New) The recombinant cell of claim 99, wherein said second nucleic acid molecule encodes one or more polypeptides that convert said target compound to provide said detectable signal.

132. (New) The recombinant cell of claim 99, wherein said inducible promoter is induced by said target compound.

133. (New) The recombinant cell of claim 132, wherein said second nucleic acid molecule encodes one or more reporter genes that provide said detectable signal.

 134. (New) The recombinant cell of claim 99, wherein said first recombinant nucleic acid molecule comprises one or more environmental DNA fragments.

135. (New) The recombinant cell of claim 99, wherein said second nucleic acid molecule comprises a nucleic acid sequence encoding one or more Yia-operon related polypeptides.

136. (New) The recombinant cell of claim 135, wherein said one or more Yia-operon related polypeptides are selected from the group consisting of YiaJ, YiaK, YiaL, ORF1, YiaX2, LyxK, YiaQ, YiaR, and YiaS.